

Buck (G.)

# ABSCESSSES

ORIGINATING IN THE

## RIGHT ILIAC FOSSA.

BY

GURDON BUCK, M. D.,

VISITING SURGEON TO NEW YORK AND PRESBYTERIAN HOSPITALS; CONSULTING SURGEON  
TO ROOSEVELT AND ST. LUKE'S HOSPITALS.

[FROM THE TRANSACTIONS OF THE NEW YORK ACADEMY OF  
MEDICINE FOR SEPTEMBER, 1874.]



UNA FIDES, ALTARE COMMUNE.

NEW YORK:  
D. APPLETON & COMPANY,  
549 & 551 BROADWAY.  
1874.



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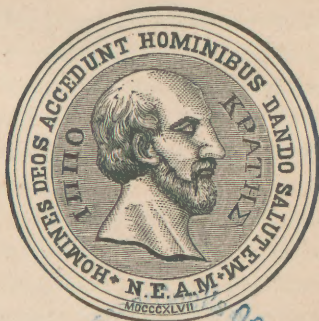
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# ABSCESSSES ORIGINATING IN THE RIGHT ILIAC FOSSA, WITH STATISTICS.

By GURDON BUCK, M.D.,

VISITING SURGEON TO NEW YORK AND PRESBYTERIAN HOSPITALS; CONSULTING SURGEON  
TO ROOSEVELT AND ST. LUKE'S HOSPITALS.

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Read September 17, 1874.

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IN preparing this paper on abscesses in the right iliac fossa, my object has been not so much to prepare a complete treatise on the subject as to present the most practical points involved in the diagnosis and treatment of this formidable disease, as illustrated by cases that have occurred in my own practice or that of my colleagues.

Abscesses in the lower portion of the abdominal cavity and its parietes may be divided into three classes:

The first class comprises abscesses produced by perityphlitis, or, as the term implies, inflammation around the cæcum, due most frequently to perforation of the vermiform appendix. The collection of pus formed in this abscess occupies the peritoneal cavity itself, and is walled in by adhesions.

The second class comprises abscesses originating in the iliac fossa of either side, and situated underneath and inclosed by the iliac fascia.

The third class comprises abscesses developed in the con-

nective tissue external to the peritonæum, and between it and the parietes of the abdominal cavity. Besides these distinct classes of abscesses, collections of pus may form in the same localities as the abscesses of the second and third classes; but, in these cases, the pus will be found to have migrated from its original place of origin at a distance, the lumbar region being the most frequent seat of origin of such collections.

It is my object, however, only to treat of the first class of abscesses; those resulting from perityphlitis, and occupying the right iliac fossa.

The following case occurred recently in my own practice:

CASE I.—G. N., a lad, aged twelve years, residing in this city, while in the enjoyment of ordinary good health, and after a day of accustomed activity, was, on Thursday, June 11th, attacked, on going to bed, with violent colic-pains and vomiting. Hot poultices and anodynes were resorted to, and on the following day free evacuations from the bowels were obtained by a dose of five grains each of calomel and Dover's powder. On Saturday evening, June 13th, forty-eight hours after the attack, I saw him in consultation with Dr. J. Linsly, the attending physician, and found his condition as follows: Vomiting had almost ceased, his pulse was moderately accelerated, and the temperature of the surface was normal. The abdomen was tumid, but not tense; and tenderness on pressure, which at first had been diffused over the whole abdomen, was now confined to the right iliac region, where a deep-seated tumor could be defined, though rather indistinctly. It occupied a space above the outer half of Poupart's ligament, and close to it. There was no elevation of the surface over the tumor, and the pain produced by the most cautious attempts at deep pressure, deterred from as thorough an exploration as might have been desirable. No dullness on percussion was appreciable, and flexion and extension of the thigh caused no pain. The tongue was clean, and there was no aversion to taking nourishment. Dr. Linsly had already prescribed pills of s. morph. gr.  $\frac{1}{4}$ , which were to be continued every two hours. The conclusion we arrived at respecting our patient was that an abscess



was forming in connection with perforation of the vermiform appendix. Six leeches were applied over the tumor the same evening, and followed by poultices. Under the influence of the morphia pills a quiet condition was maintained; the pulse ranged from 80 to 100; the temperature of the surface was uniformly natural. On Wednesday (seventh day) the morphia was suspended, and a movement of the bowels obtained by means of ol. ricin.  $\mathfrak{z}$  ss, and an enema of catnep-tea, but with only partial effect, owing to his instinctively avoiding any straining effort. After the suspension of the morphia he became nervous, and complained more of pain in the tumor, especially after an examination of it, however carefully made. No chill or feverishness was at any time observable, nor any extension of abdominal tenderness beyond the limits of the tumor itself. Nothing abnormal could be felt by digital exploration *per rectum*. On Thursday, 18th (eighth day), Prof. W. Parker joined our consultation, and arrived unhesitatingly at the conclusion that an abscess had formed, and required to be opened from the surface. The absence of dullness on percussion over the tumor was the only condition that did not concur in establishing the diagnosis arrived at. All the other conditions and antecedents corroborated it; and the existence of resonance was afterward explained by the presence, within the cavity of the abscess, of an abundant collection of gas. The morphia and poultices were resumed, preparatory to an operation on the following day. On Friday (ninth day), at twelve o'clock, the operation was performed, after the inhalation of ether. Some elevation of the surface over the tumor was now manifest, but no redness, or œdematous infiltration, or adhesion of the skin to the underlying parts, existed; nor was any fluctuation perceptible. By a bolder palpation, now admissible under anæsthesia, the deeper outlines of the tumor could be better defined, and its longest diameter was ascertained to be parallel with Poupart's ligament. The operation was performed as follows: A point two fingers' breadth distant from and to the inside of the anterior superior spinous process of the ilium, and a little below its level, where the tumor ap-

proached nearest to the surface, was chosen for an opening, which was made with a small canulated trocar (equivalent in size to No. 1 bougie scale). A puncture was first made at the point chosen with a tenotomy-knife, through the skin, to facilitate the onward passage of the trocar. This was then inserted, and advanced till it encountered the tendon of the ext. oblique muscle, which presented great resistance to its further passage. To overcome the resistance safely, the trocar was withdrawn within its sheath, and the canula held in firm contact with the surface of the tendon, while the point of the trocar was pushed on. By successive repetitions of this manœuvre, the trocar at length encountered no further resistance; and, on being withdrawn entirely while the canula was advanced, matter escaped from its outer orifice, and the success of the procedure was demonstrated. The canula, being still held *in situ*, served as a guide, along the outer surface of which a sharp-pointed knife was conducted into the cavity of the abscess, and used to enlarge the track of the canula. On withdrawing the knife, the wound was enlarged to the extent of more than an inch at the surface of the skin. The little-finger was then thrust into the cavity of the abscess, and the opening dilated sufficiently to allow a free escape of the matter, which was fetid and of a dirty-grayish aspect, but without any biliary discoloration. With the matter there was also an abundant escape of fetid gas, to the presence of which may be attributed the resonance on percussion over the tumor. A plug of cotton-wick well greased was inserted in the opening, and the poultices resumed. For the first three or four days an injection of salt-and-water (3j to ʒ viij) was thrown into the abscess at the daily dressing. His subsequent progress was favorable. On the fifth day after the operation, when the discharge was no longer fetid, and had regained a healthy character, two tufts of sloughy connective tissue came away, followed by a more copious discharge of pus, which had accumulated in the cavity of the abscess from obstruction of the outlet. On June 25th, the sixth day after the operation, a dark-colored, gritty substance, of the size of a small pea, was discharged. A



chemical analysis ascertained it to be a phosphatic concretion. On the day following, another substance, of the shape and size of half an inch of small clay pipe-stem, was found on the dressing; it had all the characters of compact fecal matter. After this, the suppuration progressively diminished. On June 29th a third smaller tuft of sloughy tissue was discharged. His subsequent progress requires no special notice. Under excellent care at home, with generous diet and a moderate allowance of stimulants and tonics, he steadily improved both locally and generally. On July 18th he accompanied his family to their summer residence in the country, where he continued to gain rapidly. On August 14th his father reported that the wound had healed, and he was quite himself again.

In the *Medical Record* of March 15, 1867, Prof. Willard Parker reported a case of this disease in which he first employed successfully a method of treatment which may be said to have disarmed this disease of its terrors, and changed its issue from an almost invariably fatal result to the reverse. This method consists in making an early incision into the abscess without waiting for fluctuation to demonstrate the presence of pus. In the *Medical Record* of 15th of June following, Dr. J. H. Hobart Burge, of Brooklyn, reported a second successful operation performed by Dr. Parker on a patient of Dr. Burge's. Since the publication of these two cases, two others equally successful have been reported in the *New York Medical Journal*, one by Dr. Leonard Weber, in the August number of 1871, the other by Prof. H. B. Sands, in the August number of 1874. Other cases, not yet made public, have been ascertained to have occurred in the practice of other surgeons, to whose courtesy the author is indebted for such particulars as will enable him to develop more fully this interesting subject. These cases, together with one reported by Mr. Hancock, of London, in 1848, which will be more particularly noticed hereafter, and the one in my own practice just narrated, form an aggregate of ten cases, from which the following deductions may be drawn :





Seven were males and three females. Their ages were as follows: two males were twelve; one female fifteen; one sixteen; one male seventeen; four males were respectively twenty-two, thirty-two, forty, and forty-one; one female was the mother of five children. In every case the invasion of the disease was abrupt, and attended with symptoms of acute peritonitis, which early became localized in the ilio-cæcal region, and in all a deep-seated tumor was more or less distinctly felt at an early period in the same locality. In nine of the ten cases no fluctuation could be detected at the time of the operation, which was performed on the ninth day after the attack in four cases, in one case early, so stated, and in one case each on the seventh, eighth, eleventh, thirteenth, and fourteenth days respectively. A discharge of fetid matter took place after the opening of the tumor in all cases, and in some it was accompanied with gas-bubbles. In four cases it was stated that the matter was not stained with bile, from which it might be inferred that there existed no open communication between the intestine and the cavity of the abscess; the same was probably true of the other six cases in which the fact of biliary discoloration was not stated. In five of the cases one or more foreign substances were discharged at varying intervals after the operation, and in the other five cases none were found. Where none was found it may be presumed that, if retained in the cavity of the abscess, it became embedded in exudation material, and thus was rendered innocuous. These substances were concretions, and fecal masses incrustated with concretion. In one case three tufts of sloughy connective tissue were discharged besides the foreign substances. In one case (No. 9), communicated by Dr. White, the collection of pus was excessive in quantity, and was therefore readily detected by existing fluctuation. The patient became collapsed on the ninth day, and was in imminent danger of his life. Instead of a free opening being made for the exit of matter, the aspirator was used, and twenty-six ounces of pus drawn off; two days after, sixteen ounces were drawn off by a second aspiration, and four days after the second aspiration a free opening was established.

The method of operating inaugurated by Dr. Parker, and adopted by his imitators, was the following: An incision three to six inches in length was carried across the tumor a little above and nearly parallel with Poupart's ligament, and divided the skin and subjacent tendinous and muscular layers till the fascia transversalis was exposed. An exploring-needle, or fine trocar, was then inserted in search of matter, and the puncture afterward enlarged to a free opening with a knife. In one case (No. 8), after the exposure of the fascia, the aspirator was first used, and then a free opening made. In two other cases (Nos. 4 and 6), after the exposure of the fascia transversalis, fluctuation not being perceptible, the wound was dressed open, and a spontaneous opening formed on the second and third days after.

This cautious procedure was adopted, no doubt, as a surer means of avoiding a wound of the intestines. In my own case, however, I deviated from this plan by first penetrating the abscess without any preliminary incision of the abdominal parietes, and then enlarging the punctured track sufficiently to afford a free outlet for the contents of the abscess. The reasons for this modification of the operation were these: Regarding the most prominent point of the tumor as an indication of the approach to the surface of pus, and not of intestine, this point was chosen for the insertion of a fine, canulated trocar, or, what is preferable, a sharp-pointed canula, such as is used in the operation of aspiration. The insertion of such a small-sized canula into the intestine itself would be harmless, inasmuch as on its withdrawal there would be no escape of fecal fluid, and consequently no danger of the formation of a fistula. Matter having been reached by this first step of the procedure, the canula is held *in situ*, and used as a guide, along the outer surface of which a sharp-pointed knife is conducted into the cavity of the abscess, and the track of the canula enlarged to the requisite dimensions. In case of a failure to reach the collection of pus by a first attempt, a second introduction of the canula may be safely tried at another selected point. By this method, also, an extensive incision



of the abdominal parietes is avoided, and the subsequent liability to a hernial protrusion prevented. After completing the opening with the knife, a finger should be introduced to stretch it, and a full-sized tent, well greased, should be kept in for the first three or four days after the operation.

**Remarks.** *Diagnosis.*—The abruptness of the onset of the disease, with symptoms of acute peritonitis, early becoming localized in the ileo-cæcal region, or restricted mostly to this region from the first of the attack, will distinguish it from the other forms of abscess that originate in this region, and from fecal accumulations in the cæcum, which are gradual in their development. Its precise locality in the hollow of the iliac fossa should also distinguish it from strangulated hernia, the attendant symptoms of which are not unlike those of perityphlitis. A close observation of the daily progress of the disease will also very much aid our judgment in arriving at a correct conclusion in regard to its nature.

*Prognosis.*—Authors who have treated of this disease have regarded it as almost invariably fatal in its termination. It is true, however, that sometimes recovery has taken place after the spontaneous formation of an opening into the intestine, probably the cæcum, and the discharge of the contents of the abscess *per anum*. A like favorable result has followed after an opening into the bladder, and the expulsion of pus *per urethram*. In much rarer instances the abscess has emptied itself by a spontaneous opening through the abdominal parietes. A favorable termination by resolution is perhaps of the rarest occurrence, and yet it has taken place. Happily, this disastrous tendency need now no longer exist, but may be averted by a seasonable operation.

*Treatment.*—In the onset and early progress of the disease, Mr. John Burne (in vol. xx. of "*Medico-Chirurgical Transactions*") very judiciously cautions against the energetic depleting treatment that might be applicable to acute idiopathic peritonitis. It is well to apply leeches early over the tumor to the extent of six to twelve in number, and to repeat them if necessary. Poultices are also indicated, but they

must be adjusted so as not to be burdensome by their weight. Five to ten grains of calomel, followed by ol. ricini, with the addition of tinct. opii, or sol. s. morph., should be given. After this a state of moderate narcotism should be maintained by the administration of pil. opii gr. j or sulph. morphia  $\frac{1}{4}$  to  $\frac{1}{2}$  gr., repeated at first every hour till their effect is produced, and afterward at intervals of two to four hours. The object of our treatment should be to moderate the production of pus, and thereby diminish the strain upon the adhesions which wall in the abscess, and shut it off from the general peritoneal cavity, till the favorable moment arrives for giving exit to the matter through an external opening upon the surface of the abdomen. To determine the time of operating is a point of chief importance. It should be borne in mind that we are not to wait to detect fluctuation, which is regarded as the unequivocal sign of the existence of matter. Before that point is reached, the patient is exposed to a disastrous issue from different sources, such as the giving way of the adhesions that wall in the abscess, and the supervention of fatal general peritonitis; from gangrene; and exhaustion from the hectic of purulent cachexia. If we interrogate experience on this point, we find that, in the ten cases cited in this paper, the operation was performed at the earliest moment on the seventh day after the onset of the disease, and at the latest on the fourteenth day. We may therefore, perhaps, safely lay it down as a rule that after the lapse of one week from the onset of the disease there should be no delay in resorting to the operation, unless there should be clear indications of resolution going on, which is an extremely rare issue of this disease. This treatment, so remarkably successful in the cases designated, is quite inapplicable to those other cases that prove rapidly fatal from general peritonitis. It should also be stated in this connection that Mr. Hancock, of London, performed this same operation with success in 1848, but, for some reason or other, his report of the case failed to receive the attention it deserved. In his report (*see London Medical Gazette, New Series, vol. vii., p. 547*) before the London Medical So-



ciety, of which he was then president, Mr. Hancock remarked as follows: "Abscesses of the abdomen connected with the cæcum or large intestines, and attended with fluctuation, had from time to time been opened, but he was not acquainted with any instance in which an operation had been attempted under the circumstances about to be detailed in his own case, and where the result had been so entirely satisfactory. In the cases recorded, the presence of fluctuation has proved the existence of matter, but the details of his case would show that we should not always wait for this unequivocal sign." His case was that of an adult female, in whom the attack began on the day following her giving birth to her fifth child, six or seven weeks before the full time, with a severe pain in the right groin and a sensation of something having snapped asunder as she turned herself over in bed. After nine days of appropriate treatment, Mr. Hancock operated by an incision four inches long carried across the tumor from the spine of the ilium inward above and close to Poupart's ligament. A quantity of fetid matter with gas-bubbles was discharged. On the fifteenth day after the operation, two masses of fæces, incrustated with calcareous deposit, and moulded upon each other, were discharged. From their size, Mr. Hancock judged that they had been impacted in, and had escaped by ulceration from the vermiform appendix. At a meeting of the same Society held March 27, 1871 (*British Medical Journal*, 1871, vol. i., p. 450), the subject of perityphlitis was brought forward, and, in the discussion that followed, no allusion was made to Mr. Hancock's method of treatment. Although Mr. Hancock's report was also republished in full in the *American Journal of Medical Sciences* of 1849, the only notice of it in this country was by Dr. George Lewis, then Physician to the Eastern Dispensary, in an article on "Abscesses in the Appendix Vermiformis," that appeared in the *New York Journal of Medicine*, 1856, Third Series, vol. i. Under the head of "Treatment" he remarks upon the question of the propriety of making a free incision downward upon the tumor, and states that he is inclined to favor the operation.

"The favorable issue of a single case, and this, so far as our information extends, the only one on record in which this practice was adopted, taken in conjunction with other considerations" (already stated by the writer), "if they do not conclusively settle the utility of this mode of procedure, at least justify a more extended trial of it." He then reproduces the report of Mr. Hancock's case in full. This important subject attracted no further notice, nor is any allusion to the operation to be found in the most recent text-books on medicine and surgery, such as Aitken, Reynolds, and Flint, or Holmes, Gross, or Hamilton. Happily for suffering humanity, this same method of treatment was reproduced by one of our own number, in 1867, as before stated, and has already had so many successful imitators that its vitality may now be considered as assured.

Besides abscesses following perforation of the vermiform appendix, there are lesions of the cæcum giving rise to abscess. Mr. John Burne (*"Medico-Chirurgical Transactions"* 1839, vol. xxii., p. 41) remarks: "Of perforative ulceration of the cæcum from within, no case verified by dissection has occurred under my own observation. One is described by Ferrall, in the *Edinburgh Medical and Surgical Journal*, vol. xxxvi., p. 12, Case No. 4, of tubercular ulceration, in which a tumor formed in the right groin, burst in a few days, and discharged fæces and caraway-seeds. On dissection, several ulcers were found in the cæcum, one of which had perforated its posterior wall and communicated directly with an abscess in the iliac fossa, the abscess also communicating with the external opening in the groin." Perforative ulceration of the cæcum from without, however, does occur in those cases in which abscesses following perforation of the appendix burst into the intestine, and are discharged *per anum*. A very remarkable case in which the cæcum was involved came to my knowledge in a recent visit to St. John, New Brunswick. It was communicated to me by Dr. William Bayard, an eminent practitioner of that city, to whose courtesy I am indebted for the following history of the case, drawn up by Dr. Thomas Walker, the medical attendant upon the patient:



CASE II. *Worms discharged from the Cæcum through an Opening in the Abdominal Parietes.*—Was called suddenly on the morning of April 29, 1874, at six o'clock, to see Mrs. L., aged sixty-five. She had been in tolerably good health until four days ago, when she was seized with vomiting, rejecting every thing swallowed. She had suffered during the preceding twelve months with occasional attacks of pain across the bowels, which she had attributed to flatulence, and which had generally been promptly relieved by the use of some warm carminative. During the present attack she did not appear to have suffered much pain. She was pale, partially insensible, with a small, feeble pulse, 96; tongue coated; bowels constipated. There had been no stercoraceous vomiting. On examining the abdomen, an oval swelling was found above Poupart's ligament, about four inches in length, extending from just above the crest of the ilium toward the symphysis pubis. It was hard, reddish, and had all the appearance of a pointing abscess. It had no impulse on coughing. She had not complained of pain there to any marked degree, though it was quite tender to the touch. Five grains of calomel were given, and a sedative and antispasmodic mixture ordered to be taken every three hours. She was allowed ice to suck, a sinapism was directed to be applied over the stomach, and a poultice to the swelling; also, beef-tea and brandy were ordered, in small quantities. At eleven o'clock in the forenoon the bowels had been freely moved; she had vomited only once since six o'clock, and had begun to retain every thing she took; pulse much stronger; she is quite sensible. Her condition remained much the same until May 1st, when the abscess having clearly pointed, and fluctuation being very distinct, it was opened about its middle, and a wineglassful of very fetid, dirty-brown pus escaped. Poultice to be continued, with the addition of a carbolic-acid lotion.

3d.—Abscess has discharged freely since it was opened. The discharge continues offensive; the edges of the opening have sloughed slightly, and another opening has formed, by ulceration, below the first. Bowels have been opened fre-

quently within twenty-four hours, the stools being thin and yellowish, but devoid of blood or pus.

4th.—On dressing the wound to-day I extracted from it a perfect worm (*Ascarus lumbricoides*), about six inches in length. Two similar worms, I was informed, had been found that morning on the poultice, with the discharge. Diarrhœa still continues.

5th.—Two more worms have been discharged from the opening, making five in all. Bowels still loose; the edges of the opening have sloughed still more.

7th.—She was seen by Dr. William Bayard; her condition has undergone no material change since the last report.

12th.—Diarrhœa has ceased; the edges of the opening have healed considerably, and now look healthy; the discharge has very much diminished in quantity, and lost its offensive character.

13th.—Fæces have begun to come through the opening, and from this date forward they continued to pass, and the case presented all the characters of a case of artificial anus until she died, in August. The worms were all dead when discharged, and one of them came away in two pieces.

NOTE.—Since the foregoing article was read at a stated meeting of the New York Academy of Medicine, held September 17, 1874, the author has received a communication from Prof. James R. Wood, M. D., of which the following extract relates to this subject:

"I have operated on three cases by Dr. Parker's method; the patients were all males and adults. In all of them the onset of the disease was abrupt, with acute symptoms of peritonitis that became localized in the right iliac region. In two of the cases the offending substance was discharged; in the third case none was seen. Two cases recovered rapidly; one died on the second day after the operation. Although I saw these cases early after the attack, I did not operate earlier than the seventh day. I think it is as important not to operate too soon as it is to defer the operation too long."







